

CLAIMS

1. A video playback apparatus having means to invoke either replay or reverse modes upon receipt of a replay-reverse multipurpose remote control signal, depending on the duration of the replay-reverse multipurpose remote control signal, and means to invoke either skip or forward functions upon receipt of a skip-forward multipurpose remote control signal, depending on the duration of the skip-forward multipurpose remote control signal.

2. The video playback apparatus of claim 1 wherein replay is invoked upon receipt of the replay-reverse multipurpose remote control signal for a duration of time below a first replay-reverse predetermined threshold, and a first reverse speed is invoked upon receipt of the replay-reverse remote control signal for a duration of time above the first replay-reverse predetermined threshold, and wherein the skip function is invoked upon receipt of the skip-forward control signal for a duration of time below a first skip-forward predetermined threshold and a first forward function is invoked upon receipt of the skip-forward control signal for a duration of time above the first skip-forward predetermined threshold.

3. The video playback apparatus of claim 2 wherein the first skip-forward predetermined threshold is one second and the first replay-reverse predetermined threshold is one second.

4. The video playback apparatus of claim 3 having at least two reverse speeds, wherein upon receipt of the replay-reverse control signal for a duration of time greater than the first replay-reverse predetermined threshold, the first reverse speed is invoked, and upon receipt of the replay-reverse control signal for greater than a second replay-reverse predetermined threshold, a second, higher reverse speed is invoked.

5. The video playback apparatus of claim 3 having at least two forward speeds, wherein upon receipt of the first skip-forward remote control signal for a duration of time greater than the first skip-forward predetermined threshold, the first forward speed is invoked, and upon receipt of the skip-forward control signal for greater than a second skip-forward predetermined threshold, a second, higher forward speed is invoked.

6. The video playback apparatus of claim 5 wherein upon receipt of each additional skip-forward key press control signal, the next fastest forward speed is invoked, up to the highest available forward speed.

7. The video playback apparatus of claim 5 wherein the second predetermined threshold is at least one second greater than the first predetermined threshold.

8. The video playback apparatus of claim 4 wherein upon receipt of each additional replay-reverse key press control signal, the next fastest reverse speed is invoked, up to the highest available reverse speed.

9. The video playback apparatus of claim 4 wherein the second predetermined
5 threshold is at least one second greater than the first predetermined threshold.

10. The video playback apparatus of claim 1 having 2X, 4X, 8X, and 16X forward speeds and -2X, -4X, -8X, and -16X reverse speeds.

11. The video playback apparatus of claim 1 wherein the duration is determined is calculated based on number of repetitions of code signal received, each repetition separated
10 by a predetermined gap.

12. The video playback apparatus of claim 11 wherein the predetermined gap is between 1 and 10 milliseconds.

13. The video playback apparatus of claim 11 wherein an end of control signal is calculated upon a gap between repetitions of receipt of a code signal of greater than 20
15 milliseconds.

14. The video playback apparatus of claim 1 having one or more functionalities in addition to video playback, the functionalities selected from DSL, integrated receiver-decoder, WinTV, and personal computer.

15. A remote control device for use with a video playback apparatus of claim 1
20 having a replay-reverse multipurpose key and a skip-forward multipurpose key.

16. The remote control device of claim 15 having means to send a control signal for the duration of time a multipurpose key is pressed.

17. The remote control device of claim 15 having means to send repetitions of a control signal, each repetition separated by a predetermined gap.

25 18. The remote control device of claim 17 wherein the predetermined gap is between 1 and 10 milliseconds.

19. The remote control device of claim 17 wherein the predetermined gap is about 2 milliseconds.

20. A system comprising a video playback apparatus according to claim 1 and a
30 remote control device having a replay-reverse multipurpose key and a skip-forward multipurpose key.

21. A method of controlling the operation of a digital video playback apparatus, the method comprising the steps of:

invoking a skip function upon receipt of a remote control skip-forward signal for less than a first predetermined duration, invoking a first forward speed upon receipt of the skip-forward remote control signal for greater than the first predetermined duration, invoking a second, faster forward speed upon receipt of either the skip-forward remote control signal for greater than a second predetermined duration or upon receipt of a second skip-forward remote control signal; and

invoking a replay function upon receipt of a replay-reverse remote control signal for less than a first predetermined duration, invoking a first reverse speed upon receipt of the replay-reverse remote control signal for greater than the first predetermined duration, invoking a second, faster reverse speed upon receipt of either the replay-reverse remote control signal for greater than a second predetermined duration or upon receipt of a second replay-remote control signal.

22. A electronic playback apparatus capable of receiving an external speed control signal for controlling playback speed, the electronic playback apparatus comprising:

a receiver for receiving the external speed control signal;
a microprocessor for varying the playback speed according to duration of the external speed control signal.

23. The electronic playback apparatus of claim 22, wherein the playback speed is forward speed.

24. The electronic playback apparatus of claim 22, wherein the playback speed is reverse speed.

25. The electronic playback apparatus of claim 22, wherein the external speed control signal is a signal generated by holding down a key for a skip-forward function.

26. The electronic playback apparatus of claim 22, wherein the external speed control signal is a signal generated by holding down a key for a play function.

27. The electronic playback apparatus of claim 22, wherein the external speed control signal is a signal generated by holding down a key for a replay-reverse function.